Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 2, 25 and 97	)	
of the Commission's Rules with	)	ET Docket No. 98-142
Regard to the Mobile-Satellite	)	
Service Above 1 GHz	)	
	)	

To: The Commission

REPLY COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS

The Association of American Railroads ("AAR"), by its undersigned counsel, pursuant to section 1.415 of the rules of the Federal Communications Commission ("Commission")[1/] and the Order released October 5, 1998,[2/] hereby submits its reply to the comments filed in response to the above captioned Notice of Proposed Rule Making[3/] concerning use of the upper 6 GHz band (6525-7075 MHz) for downlink frequencies to be used with Mobile Satellite Service ("MSS") feeder links.

AAR is a voluntary, non-profit organization composed of Class I member railroad companies operating in the United States, Canada and Mexico. AAR is the joint

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1/ See 47 C.F.R. § 1.415.

2/ Order Granting Motion to Extend Reply Comment Date, DA 98-2011, (released October 5, 1998).

3/ In the Matter of Amendment of Parts 2, 25, and 97 of the Commission's Rules with Regard to the Mobile-Satellite Service Above 1 GHZ, ET Docket No. 98-142, Notice of Proposed Rule Making, (FCC 98-177),(Released August 4, 1998)("Notice").

representative and agent of these railroads in connection with federal regulatory matters of common concern to the industry as a whole, including matters pertaining to regulation of communications. In addition, AAR functions as the frequency coordinator with respect to operation of land mobile and other radio-based services.

I. SUMMARY OF RAILROAD INDUSTRY POSITION

AAR believes that the proposal in this proceeding presents significant potential problems for licensees of fixed microwave facilities in the upper 6 GHz band, for two reasons. First, the proposed downlink power limits may not be adequate to protect fixed service links; and, second, the siting of MSS gateway earth terminals will impose constraints on the expansion of terrestrial use of the upper 6 GHz band. Accordingly, AAR recommends that the Commission not adopt the proposed rules unless and until the Commission has satisfied itself beyond question that no operational constraints or interference will be inflicted upon the fixed service incumbents in the upper 6 GHZ band as a result of the proposed MSS gateway earth stations.

II. NATURE OF RAILROADS' INTEREST

As the Commission is aware, the railroad industry makes extensive use of fixed microwave links for the operation and control of train movements.[4/] The North American railroad industry deploys and depends upon a comprehensive and sophisticated network of point-to-point fixed service (FS) microwave systems used to carry voice and data traffic which is integral to the minute-to-minute management and

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4/ See e.g., Comments of Association of American Railroads in ET Docket No. 95-18, RM-7927, filed March 5, 1995; Railroads' Comments in Response to SkyBridge Application (11 GHz Band), filed December 15, 1997.

control of train movements throughout the rail network.[5/] These FS links, many of which operate in the upper 6 GHz frequency bands, are vital to ensuring safety on the nation's railroads. As shown schematically on the diagram attached as Attachment A, a combination of FS links and mobile radio channels are used for transmitting voice and data communications to and from crews in locomotives and for controlling and monitoring rail switches and signals. The FS links are used to interconnect the trackside radio facilities (both mobile and fixed) with the centralized dispatching center in each railroad's operating region. For example a locomotive traveling on Union Pacific's right-of-way in Nevada is in contact via mobile radio and FS links, with the Union Pacific centralized dispatch and control center located hundreds of miles away in Omaha, Nebraska; similarly, Jacksonville, Florida is the center of operations for trains on the CSX network, which covers the Southeast Mid-central and Middle Atlantic regions of the nation.

FS microwave circuits are integral links in this nationwide railroad communications system. These links carry communications to advise of dangerous conditions and, if necessary, bring railroad operations to a halt to prevent unsafe conditions. Radio communications between trains and central dispatchers are essential to protect railroad employees and the general public. Only radio can provide immediate information on the location, direction and speed of hundreds of trains operating at the same time on each major railroad in the country. This information is

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5/ See AAR's Comments in ET Docket No. 95-18, filed May 5, 1995; AAR's Reply Comments filed June 21, 1995; and AAR's Response to Comsat's Supplemental Comments filed May 17, 1996.

indispensable to railroad safety. In this regard, a 1994 "Report to Congress" by the Federal Railroad Administration reviewed in detail the various types of railroad communications systems, including those used for train movement and control, switching operations, defect detection and emergency response, and concluded that radio communications were an integral part of railroad safety planning and execution.[6/]

These operational and safety uses are absolutely critical to the safe operation of railroads and cannot be jeopardized by interference from other spectrum users, including co-frequency MSS feeder links. In an analogous setting, the critical nature of the railroads' use of mobile radio frequencies for safety and operational control and management of train movements was recognized explicitly by the FCC in its recent decision in the "refarming" proceeding, wherein the Commission granted special protection to railroad mobile radio channels due to their "quasi-public safety" nature in light of the potential threat of interference from non-railroad land mobile users.[7/] This recognition and protection must also be extended to the fixed links of the railroad radio systems because, as with any radio communications system, the reliability of the railroad industry's integrated mobile and fixed networks is only as good as the system's weakest link. If, having afforded special protection to the railroads' mobile links, the

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6/ Railroad Communications and Train Control, Federal Railroad Administration, Department of Transportation Report to Congress, July 1994 at 22-34 (hereafter FRA Report).

7/ Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them; and Examination of Exclusivity and Frequency Assignments Policies of the Private Land Mobile Services, PR Docket No. 92-235, FCC 97-61, Second Report and Order, ¶ 41 (released March 12, 1997) ("Refarming" proceeding).

Commission were to allow interference from MSS feeder links in the upper 6 GHz band to jeopardize the railroad's FS links, the Commission would undermine the laudable result it achieved in the "refarming" proceeding.

It is for these reasons that the railroad industry is vitally concerned about the implication of the proposal for MSS feeder link sharing in upper 6 GHz FS band. Furthermore, as more and more railroad FS operations are moved out of the 2 GHZ band pursuant to the Commission's mandate in ET Docket No. 92-9 and ET Docket No. 95-18 to make way for new technologies,[8/] there will be an ever-growing need to utilize the higher FS bands specified in Part 101 of the Commission's rules, including the upper 6 GHZ band. Accordingly, the Commission's goal should be to protect and preserve existing and future use of the upper 6 GHz band by the FS user community.

III. PROTECTION FROM DOWNLINK INTERFERENCE

AAR agrees with and endorses the comments filed in this proceeding by the Fixed Point-To-Point Communications Section (Network Equipment Division) of the Telecommunications Industry Association ("TIA Comments"). Specifically, AAR agrees with the assessment in the TIA Comments regarding the adequacy of the power flux density limits proposed in footnote no. S9.11A[9/] and encourages the Commission to

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8/ See, Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, First Report and Order and Third Notice of Proposed Rule Making, 7 FCC Rcd 6886, 6890 (1992), Second Report and Order, 8 FCC Rcd 6495 (1993); Third Report and Order and Memorandum Opinion and Order, 8 FCC Rcd 6589 (1993).

9/ TIA Comments at 5.

adopt the TIA proposal to use simulation programs for assessing the interference potential to terrestrial systems before proceeding further in this matter.[10/]

IV. COORDINATION STANDARDS SHOULD BE ADOPTED, TOGETHER WITH RESTRICTIONS ON LOCATION OF MSS FEEDER LINK EARTH STATIONS

In its Notice of Proposed Rulemaking in this proceeding, the Commission proposed use of the upper 6 GHz band for feeder downlinks by up to four MSS systems, and assumed that each system would require approximately six gateway earth stations,[11/] for a total of 24 such stations in the U S The Commission invited comment on where these 24 gateway stations were likely to be geographically located, i.e., whether they would be situated in rural or urban areas.[12/] In its comments in this proceeding, TIA assumed that these 24 gateways would be located in or near population centers, thereby denying the terrestrial fixed service use of the entire upper 6 GHz band in the major population centers of the nation.[13/]

AAR does not accept TIA's assumption Because this band will be used for MSS feeder links, as distinct from subscriber links. there would appear to be no need for location of the MSS earth stations in or near population centers. Instead, there is no reason why the feeder link earth stations could not be located in remote geographic areas, far away from the congested upper 6 GHz microwave routes which coincide

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10/ TIA Comments at 6.

11/ Notice in ET Docket No. 98-142 at para. 24.

12/ Id.

13/ TIA Comments at 7.

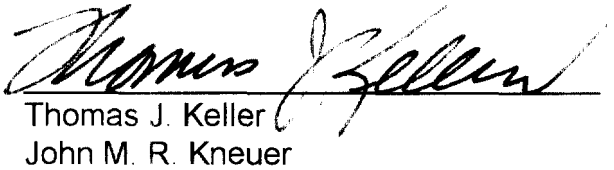
geographically with major population centers because of the need for infrastructure support in those locations (e.g., utilities, pipelines rail facilities, public safety networks, etc.). For this reason, AAR urges the Commission to adopt stringent regulatory constraints on the location of these feeder link earth stations, restricting their placement to locations far removed from existing or planned terrestrial FS links operating in the upper 6 GHz bands. In addition AAR supports the recommendation in the TIA Comments that the Commission require MSS feeder link applicants to provide specific details concerning technical characteristics of proposed systems for coordination and licensing purposes.[14/]

V. CONCLUSION

In adopting rules governing the deployment of MSS feeder link stations as proposed in this proceeding, the Commission must consider very carefully the potential adverse impact upon existing terrestrial users of the upper 6 GHz band, especially those operating in safety-critical businesses such as the railroad industry.

Respectfully submitted,

ASSOCIATION OF AMERICAN RAILROADS

By: 

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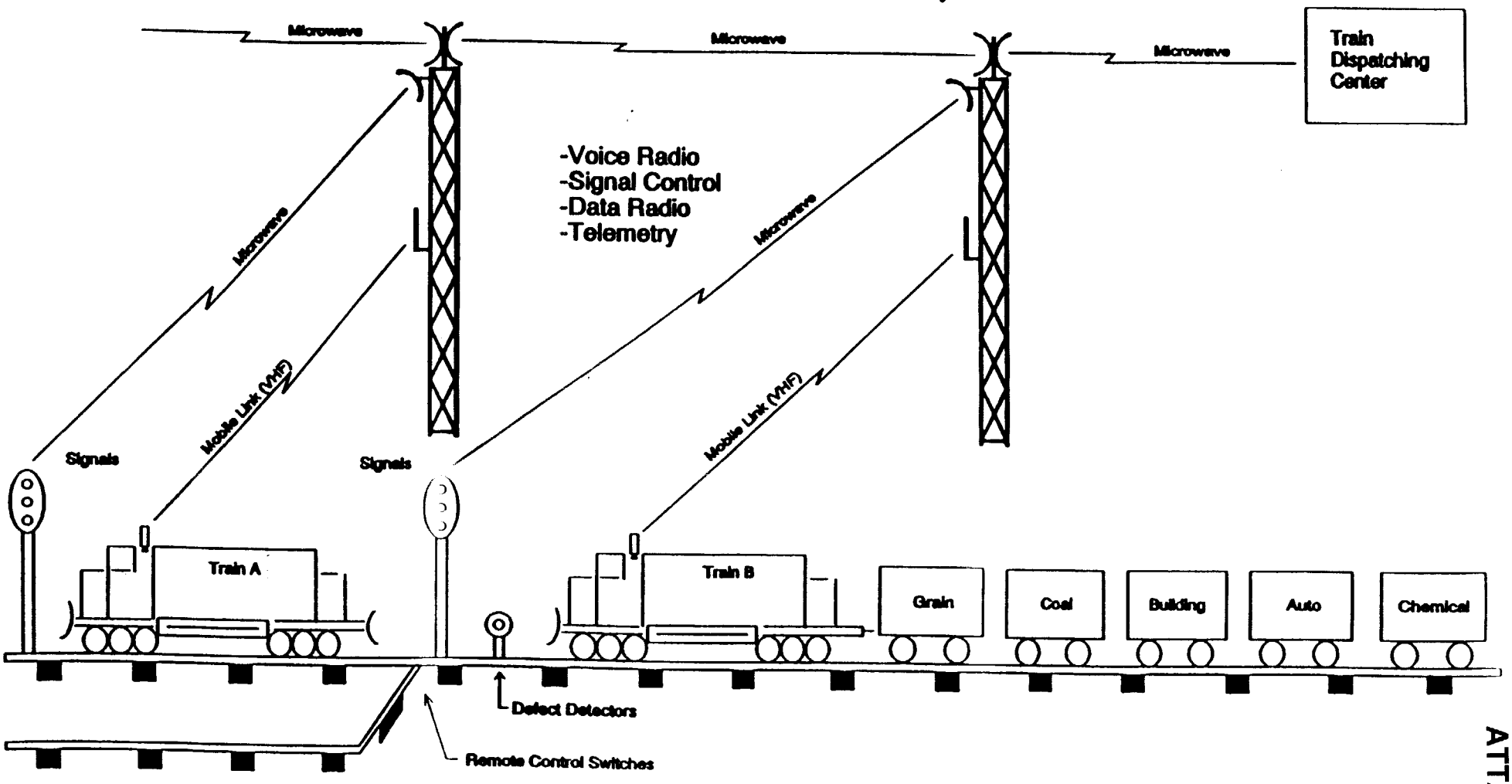
Attachment A

14/ TIA Comments at 6-8.

Railroad Radio Systems

-are essential for safe, reliable, efficient rail transportation to interconnect train control systems.



Public safety is dependent on safe transportation.

Railroad freight transportation is critical to U.S. economy.

ATTACHMENT A

CERTIFICATE OF SERVICE

The undersigned hereby certifies that, on this 13th day of October, 1998, I caused copies of the foregoing document to be served by first-class U.S. mail to the following:

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